

REMARKS

Claims 1, 4-9, 11-18, and 20-25 are currently pending. In an Office Action dated August 8, 2008, the Examiner rejected claims 1, 4-9, 11-12, 16-18, 20, 23, and 25 under 35 U.S.C. §102(e) as being anticipated by Katsube et al. (U.S. patent no. 6,501,756, hereinafter referred to as “Katsube”). The Examiner rejected claims 8, 13-15, 21-22, and 24 under 35 U.S.C. §103(a) as being unpatentable over Katsube in view of Chuah et al. (U.S. patent no. 6,735,190). The rejections are traversed and reconsideration is hereby respectfully requested.

The Examiner rejected claims 1, 4-9, 11-12, 16-18, 20, 23, and 25 under 35 U.S.C. §102(e) as being anticipated by Katsube. Specifically, with respect to claims 1, 18, and 23 the Examiner contended that Katsube teaches a method for multiplexing data packets that includes receiving multiple data packets, wherein each received data packet comprises a routing address that is associated with one or more of network layer routing information and transport layer routing information (col. 2, lines 42-67), determining an address label for each received data packet based on the data packet’s routing address, wherein the address label provides one or more of network layer and transport layer routing information (col. 7, lines 40-67), deleting the data packet’s routing address from the data packet and adding the address label determined for the data packet to the data packet to produce a modified data packet and multiplexing the modified data packets (col. 9, lines 19-67), and wrapping the multiplexed data packets with a new data transmission header comprising link layer routing information for the multiplexed data packets to produce a data transmission unit (col. 11, lines 12-20 and 33-56). The applicants respectfully disagree.

Nowhere does Katsube teach the features of claim 1, 18, and 23 of *determining an address label* for each received data packet based on the data packet’s routing address, *wherein the address label provides one or more of network layer routing information and transport layer routing information, deleting the routing address from data packet and adding the address label determined for the data packet to the data packet to produce a modified data packet, or wrapping the multiplexed data packets with a new data transmission header comprising link layer routing information for the multiplexed data*

packets to produce a data transmission unit. That is, Katsube teaches switching based on based on sub-network layer headers. More particularly, Katsube teaches inserting a ‘generic label header’ between a Layer 3 (network layer) header and a Layer 2 (data link layer) header (col. 6, lines 43-46) and then adding a tail to produce a cell, or frame, or packet. At ingress node, the node attaches the generic label header and Layer 2 header to a received frame and outputs the Layer 2 frame (col. 7, lines 39-55; col. 8, lines 16-28). Intermediate label switching routers overwrite the generic label header with a new generic label header, attach a new Layer 2 header, and output this Layer 2 frame (col. 8, lines 32-46). An output node then performs Layer 2 processing, removes the generic label header, performs Layer 3 processing, and then outputs the resulting packet.

That is, the only headers being replaced are the generic label header and the Layer 2 header, and they are just replacing themselves, that is, a respective preceding generic label header and Layer 2 header. Neither replaced header is a network layer (Layer 3) or transport layer (Layer 4) header. Furthermore, the Label Switching Protocol (LSP), and corresponding label switching routers, taught by Katsube is a third sub-layer of the data link layer, or alternatively may be thought of and are referenced by Katsube as an intermediate protocol that is inserted between the data link layer (Layer 2) and the network layer (Layer 3), and includes a tag of bits sitting between a Layer 2 header and the upper layer (Layer 3 and higher) headers, such as the network layer and transport layer headers, and is only link layer significant. Katsube does not teach determining an address label for the data packet based on the data packet’s routing address, wherein the address label provides one or more of *network layer and transport layer* routing information. Furthermore, nowhere does Katsube teach deleting network layer or transport layer routing addresses from the data packets.

Column 2, lines 42-67, of Katsube merely teaches LSP and using Label Distribution Protocol (LDP) messaging to implement LSP. As detailed above, LSP may be thought of as either Layer 2 (as a third sub-layer of the data link layer) or as a new layer interposed between Layer 2 and Layer 3. LSP, including LDP bindings, provides data link layer routing for packets received from the network layer and not transport layer routing, and LDP labels are inserted at the very beginning of a packet and are used by hardware to switch, or route, packets among data link layer paths. Column 7, lines 40-

67, and column 9, lines 19-67, of Katsube merely teach an ingress node that adds the generic label header and Layer 2 header to a received frame and outputs the Layer 2 frame; column 11, lines 12-20, of Katsube merely teaches adding a generic label header; and column 11, lines 33-56, of Katsube merely teaches determining a revised Time To Live (TTL) value *of the generic label header* by decrementing the TTL value of the Layer 3 header by a number of hops.

None of these sections of Katsube teaches the features of claims 1, 18, and 23 of determining an address label for each received data packet based on the data packet's routing address, wherein the *address label provides one or more of network layer routing information and transport layer routing information or deleting the routing address from data packet and adding the address label determined for the data packet to the data packet to produce a modified data packet*. Furthermore, none of these sections teaches a multiplexing of data packets, let alone the features of claims 1, 18, and 23 of multiplexing the claimed modified data packets, let alone the features of claims 1, 18, and 23 of wrapping the multiplexed data packets with a new data transmission header comprising link layer routing information for the multiplexed data packets to produce a data transmission unit.

Therefore, the applicants respectfully submit that Katsube does not teach the features of claims 1, 18, and 23 and respectfully request that claims 1, 18, and 23 may now be passed to allowance.

Since claims 4-8 depend upon allowable claim 1, claims 20-22 depend upon allowable claim 18, and claims 24 and 25 depend upon allowable claim 23, the applicants respectfully request that claims 4-8, 20-22, and 24-25 may now be passed to allowance.

Claim 9 provides a method for point-to-point transmission of data including receiving, by a data transmitting device, multiple data packets, wherein each received data packet comprises a routing address that is associated with one or more of network layer routing information and transport layer routing information, determining, by the data transmitting device, an address label for each received data packet based on the data packet's routing address, wherein the address label provides one or more of network

layer and transport layer routing information, and for each data packet of the multiple received data packets, deleting, by the data transmitting device, the data packet's routing address from the data packet and adding, by the data transmitting device, the address label determined for the data packet to the data packet to produce a modified data packet. As described in detail above, these features are not taught by Katsube. Accordingly, the applicants respectfully request that claim 9 may now be passed to allowance.

Since claims 11-17 depend upon allowable claim 9 the applicants respectfully request that claims 11-17 may now be passed to allowance.

As the applicants have overcome all substantive rejections and objections given by the Examiner and have complied with all requests properly presented by the Examiner, the applicants contend that this Amendment, with the above discussion, overcomes the Examiner's objections to and rejections of the pending claims. Therefore, the applicants respectfully solicit allowance of the application. If the Examiner is of the opinion that any issues regarding the status of the claims remain after this response, the Examiner is invited to contact the undersigned representative to expedite resolution of the matter. Furthermore, please charge any additional fees (including any Request for Continuing Examination and extension of time fees), if any are due, or credit overpayment to Deposit Account No. 50-2117.

Respectfully submitted,
Dah-Lain Almon Tang et al.

By: /Steven May/

Steven A. May
Attorney for Applicants
Registration No. 44,912
Phone No.: 847/576-3635
Fax No.: 847/576-3750